2008 USAID Development 2.0 Challenge submissions
HEALTH
Entries 1-20

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1) Angel Eyes Mobile (by Hospitals of Hope)

Purpose: Allows doctors in the developing world to consult with medical experts worldwide on difficult cases using web-enabled phones.

Where it has worked: System not yet implemented or tested.

Business model: Not specified.

Tech approach: Using web-enabled phones, doctors can remotely log on and view a patient's vitals, along with a video feed from the hospital.

Other Partners/Funding Sources: Spacelabs Healthcare

Project URL: http://www.hospitalsofhope.org/angeleyesmobile.htm

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2) CellDR (by Sanford Institute of Public Policy and International Development- Duke University)

Purpose: Increases access for underserved populations in need of medical advice, consultation, and referral.

Where it has worked: Not specified.

Business model: Not specified.

Tech approach: A "triage" center is staffed by health workers who used an algorithm-based software to make diagnoses and provide referrals for patients remotely.

Other Partners/Funding Sources: Not specified.

Project URL: n/a

Contact Info:

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3) RapidSMS: Child Malnutrition Surveillance (**DEVELOPMENT 2.0 CHALLENGE WINNER**)

Purpose: Transmits nutritional data from growth monitoring clinics in Malawi to government and UNICEF databases, while providing instant feedback to mothers on the changing status of their child's growth.

Where it has worked: RapidSMS system has been used in Uganda, among other countries.

Business model: Not specified, outside of donor funding/support.

Tech approach: Nutritional data reporting via SMS to backend database/server in country.

Other partners/funding sources: UNICEF

Project URL: n/a

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4) ClaimsMobile: Mobile Medical Claims Management for Output-Based Healthcare

Purpose: Addresses skewed incentives for healthcare providers by allowing reimbursement of clinics for services provided.

Where it has worked: Not specified.

Business model: Not specified.

Tech approach: Smart phones feed data to back-end data system fronted by a web application.

Other partners/funding sources: Not specified.

Project URL: http://oba-uganda.net

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5) ClickDiagnostics: A Micro-Entrepreneurship Based Model to Transform Healthcare Delivery Through Mobile Telemedicine (**DEVELOPMENT 2.0 CHALLENGE RUNNER-UP**)

Purpose: Enables existing health-worker networks and micro-entrepreneurs to provide advanced medical consultation and to gather health data by connecting them to our global health servers via mobile phones.

Where it has worked: Mobile tele-dermatology and screening of pregnant women at risk for complications carried out in some of the following countries using ClickDiagnostics system: Botswana, Malawi, Egypt, Ghana, and Bangladesh.

Business model: Not specified.

Tech approach: Low cost smart-phone sold on a micro-franchise basis to community based health workers who use system to provide remote diagnostic and other services at the community level. Team eventually hopes to link software to an ecosystem of service applications in a "Facebook" model. Nominal fees are paid by patients seeking consultations and by recipients of data (such as NGOs, governments, etc.)

Other partners/funding sources: Telederm/Africa, UPenn-Botswana, and other local NGO partners. Won MIT 100K Business Plan Competition – Development Track.

Project URL: http://clickdiagnostics.com

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6) CUTE: The Community Health Information Tracking System (CHITS) User Training Experience

Purpose: A low-cost electronic health records system that allows rural health workers "uninitiated" in technology hardware and software to easily use the system after a small amount of training.

Where it has worked: Not specified, although some efforts have been undertaken in the Philippines.

Business model: Not specified.

Tech approach: Uses a web-based open source (GPL) electronic heath record for village health centers. Hardware employed is not specified.

Other partners/funding sources: International Research Center of Canada (current involvement unclear).

Project URL: http://www.chits.ph

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7) Direct2mom

Purpose: To extend access to pre and neonatal information via SMS to ensure healthy pregnancies, safe childbirths, reduced HIV transmissions, and increased child immunizations.

Where it has worked: Not specified.

Business model: Free subscription model, relies on private sector partner for funding.

Tech approach: SMS push technology distributes health messaging.

Other partners/funding sources: Not specified.

Project URL: n/a

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8) Dosage

Purpose: Provides accurate medication dosage information to patients, primarily targeted at elderly users to give them timely and accurate reminders and correct dosage information.

Where it has worked: Not specified.

Business model: Not specified.

Tech approach: Software based on Java technology and telephones that possess JavaVM that has access to the calendar, alarm clock and possibly the content of SMS/MMS messages. File can be downloaded from a PC or sent via SMS.

Other partners/funding sources: Not specified.

Project URL: http://62.108.117.109/

Contact Info:

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9) HIV Atlas

Purpose: Allows a user to search, rate, add information related with HIV like blood banks, Test centers and other resources like best sites, communities etc. Fills information gaps and needs for HIV+ people.

Where it has worked: Previously used in California.

Business model: Not specified.

Tech approach: Website.

Other partners/funding sources: Not specified.

Project URL: n/a

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10) How We Care: 'Mobilizing' Community Health – AMREF

Purpose: Seeks to achieve better health for the people of Africa by placing community organizations as central nodes in health networks through the use of mobile phone technology.

Where it has worked: Not yet implemented, concept still being developed.

Business model: Not specified.

Tech approach: Uses community organizations as "nodes" to link various pieces of "health networks" through mobile phones.

Other partners/funding sources: African Medical and Research Foundation (AMREF), South Africa

Project URL: n/a

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11) InteractiveAlerts - Mobile patient tracking and data collection using RFID

Purpose: InteractiveAlerts offers patient tracking and data collection using a mobile phone. A

multi-tier system, it comprises of a mobile client application running on the Nokia 6131 NFC (Near Field Communication), a server side application that enables data storage, web front-end to for real-time data viewing, and a built-in RFID reader/writer for patients.

Where it has worked: Interactive Research & Development has been actively working towards integration of low-cost technology and tools to help improve patient care and data collection for the public health sector. Studies have been successfully completed on diseases such as TB, malaria, and HIV, and the data used to help provide free medical care and medication for the patients.

Business model: not specified

Tech approach: RFID, SMS, Nokia 6131 Near Field Communication, server side application, website for data viewing

Other Partners/Funding Sources: Johns Hopkins University

Project URL: n/a

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12) Portable Light iTEACH Blanket

Purpose: A solar powered blanket delivers de-centralized renewable power and light to homes and cell phones to target HIV and multi-drug resistant TB patients via text messages that encourage positive actions such as HIV testing and that connect patients to health care providers.

Where it has worked: Serving indigenous communities in the Mexican Sierra Madre, since 2005, new projects are underway for Nicaragua, through the Paso Pacifico program, for the Brazilian and Venezuelan Amazonas through Tele-Salud Medicos and for KwaZulu-Natal in South Africa through the iTeach program at the Edendale Hospital.

Business model: Collaboration between the nonprofits iTEACH and the Portable Light Project for a comprehensive home treatment program. Women in local sewing clubs integrate flexible solar kits into locally produced African cloth, making a detachable solar textile lantern.

Tech approach: Pilot project brings together health care information dissemination via text messages, clean solar energy with a renewable home lighting and cell phone charging systems, a comprehensive home-based MDR TB treatment training program in KwaZulu-Natal.

By day, the patient uses the blanket to stay warm while exposed to the outdoors. Sunlight charges the unit in three hours, creating 6 watt-hours of energy stored in a rechargeable battery. At night, Portable Light

Other partners/Funding Sources:

Rocky Mountain Institute
Core grant received from The Richard and Elizabeth Witten Family Foundation
Portable Light Project Wins a 2008 Tech Laureate Award

Project URL: www.portablelight.org

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13) Linking Patients to Health Using Mobile Technology

Purpose: The Personal Health Record (PHR) Improves clinical care and health decision-making in safety net settings by developing a mobile application that links patients to their health record and provides methods to share information, create treatment plans, and alert or remind patients how to optimize and understand their health care without requiring constant personal internet connections.

Where it has worked: San Francisco. Dr. James Kahn led the team development of the electronic medical record system, HERO (Healthcare Evaluation Record Organizer) for the dual purpose of providing a platform for clinical care and research. His work involves combining well-defined and curated health data from several centers into a single database for research, adding genomic data into clinical databases and developing personal health records for the urban poor to improve their connections to their safety net systems, developing the concept of patients as partners in health.

Business model: not specified

Tech approach: not specified

Other partners/Funding Sources:
AIDS Research Institute, UCSF

Project URL: https://myhero.sfdph.org; http://php.ucsf.edu; http://www.mjap.or.ug

Contact Info:
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14) Light Up The World (LUTW) Mobile Solid State Lighting Medical and Dental Lamp

Purpose: To develop and distribute a mobile, robust and ultra-bright lighting system that is affordable, safe, healthy, efficient and environmentally responsible for people without access to electricity. This product would be used in medical and dental treatments both in the developing world and during disaster relief efforts around the world.

Where it has worked: Working with local partners around the globe LUTW has installed 16,000 lighting systems in 44 countries throughout the developing world. Over 100,000 people have been impacted directly by this new and innovative approach to development.

Business model: not specified

Tech approach: LUTW is based on world-class ultra-efficient solid state lighting (specialized LED based lighting system—Nemalux LED Lighting) powered by renewable energy to produce light, requiring as little as one watt per lamp, a dramatic reduction relative to current fluorescent and incandescent technologies.

Other partners/Funding Sources:
Nemalux LED Lighting
University of Calvary

Project URL: http://lutw.org/home.htm

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15) Madagascar E-Health Solution – Innovations in Mobile Technology

Purpose: To apply the internet and other related technologies in healthcare to improve the access, efficiency, effectiveness and quality of clinical processes and systems used by healthcare organizations, practitioners, and patients.

Where it has worked: USAID's EGAT and GH tasked Via Consulting Group to research and develop a data collection system using wireless PDA technology that could be used for outbreak and vulnerable population initiatives in developing countries. Via Consulting Group designed the

USAID / Animal Health Information Management System (AHIM) that resulted in a low-cost, scalable, replicable, and inter-operable system of systems serving the information needs of African public and private stakeholders. The AHIMs will be deployed initially in Rwanda, Ghana and Uganda. Via Consulting Group played an integral role in the USAID Enterprise Architecture (EA) team in identifying the existence of unmet data collection and reporting needs.

Business model: not specified

Tech approach: Tele-consultation (web, voice menu, SMS), supply chain management for full range of medical facilities and providers, free open source population-based surveys for non-clinical information for easy reporting and querying, web-based and mobile-based patient-centered clinical information system at all levels of the health system, and eLearning at regular intervals to facilitate regular training for all health professionals and greater access to new and global advances in diagnosis, treatment, and management through web, audio, SMS and other technology.

Other Partners/Funding Sources:
USAID

Contact Info:
Via Consulting Group

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16) MERIT - Monitoring & Evaluation Reporting & Integration Tool

Purpose: Using mobile phones to collect data through a web-based indicator tracking system for use in low resource areas. It allows project teams to establish indicators capable of working within one or multiple frameworks, capturing different levels of detail, and indicators that can be matched to various collection schedules.

Where it has worked: MERIT's web-based tracking tool was built by the Non-Profit Organization Knowledge Initiative, a collaboration of international health organizations. The MERIT tool is appropriate for all of their members and country partners. Beta-testing finished in November of 2008. It is currently being used by four international health organizations in various locations in Asia, Africa, and Latin America.

Business model: not specified

Tech approach: Web-based tracking tool. Specifications for MERITT II, including its mobile phone integration, are currently being developed.

Other Partners/Funding Sources: Non-Profit Organizations Knowledge Initiative (NPOKI)

Project URL:
http://sites.google.com/a/npoki.org/merit/Home

Contact Info:

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16) MIDA - Medical In-Field Diagnostic Assistant

Purpose: MIDA is an interactive in-field diagnostic assistant for rural health workers that uses existing SMS technology to support clinical diagnosis in rural areas, information dissemination and the collection of public health data.

Where it has worked: not specified

Business model: not specified

Tech approach: Uses existing SMS technology

Other Partners/Funding Sources: not specified

Project URL:
www.mida-intl.org

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17) Mobile Health (MHealth) for Development: EpiSurveyor in Africa

Purpose: Open source software on mobile devices enables healthcare professionals anywhere to instantly record and aggregate essential health data.

Where it has worked: By the end of 2008, the EpiSurveyor-based mHealth program is operating in over 20 countries in sub-Saharan Africa, where the software is being used to track crucial data—from the availability of medical supplies to the coverage rates of immunization campaigns.

Business model: not specified

Tech approach: EpiSurveyor is a free, open source software that can be easily downloaded onto mobile devices.

Other Partners/Funding Sources: The MHealth for Development program, which falls under the Technology Partnership between the United Nations Foundation and the Vodafone Foundation funded DataDyne's development of EpiSurveyor

Project URL:
http://www.unfoundation.org/global-issues/technology/mobile-helath-for-development.html

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18) Mobile Personal Health Record

Purpose: The Mobile Personal Health Record aims to create a mobile extension of an open source personally controlled health record platform, which will facilitate the recording of personal health data, the personal use of evidence-based health protocols via a "plug-in" approach and the empowerment of the individual to interact more effectively with the health ecosystem. This is a mobile extension of a proven Personal Health Record, MyOSCAR.

Where it has worked: not specified

Business model: not specified

Tech approach: The Personal Health Record is a standards-based, open source tool (based on the Indivo open source project). A generic "lego block" architecture can be used to address any specific problem such as chronic disease or communicable diseases as well as general health, wellness, and prevention.

Other Partners/Funding Sources: McMaster Department of Family Medicine (MyOSCAR support)

Project URL: http://myoscar.org/, http://www.oscarmcmaster.org

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19) Mobile Phone for Data Collection in Home Based Care

Purpose: Data collection over a mobile phone will improve the quality of life and care for seriously ill/bed-ridden AIDS patients in remote, hard-to-reach areas. The cell phone will include a customized menu with a data collection tool that is filled as a normal message by the Home Based Care (HBC) Contact Person (CP.) The CPs will use the phone to forward data from service providers in messages to a server and central database.

Where it has worked: Project will start with two remote districts that are heavily burdened by home based care services: Kilombero in Morogoro region and Kyela in Mebeya region of Tanzania.

Business model: not specified

Tech approach: SMS over mobile phone, central server, website,

Other Partners/Funding Sources: Family Health International, Tanzania National AIDS Control Program (NACP)

Project URL: not specified

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20) Mobile Phone for Data Collection in Home Based Care

Purpose: Data collection over a mobile phone will improve the quality of life and care for seriously ill/bed-ridden AIDS patients in remote, hard-to-reach areas. The cell phone will include a customized menu with a data collection tool that is filled as a normal message by the Home Based Care (HBC) Contact Person (CP.) The CPs will use the phone to forward data from service providers in messages to a server and central database.

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Other Partners/Funding Sources: Family Health International, Tanzania National AIDS Control Program (NACP)